



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
<http://www.epa.gov/region08>

Ref: EPR-ER

INITIAL POLLUTION REPORT Creston Post and POLE RV2 Site Creston, Flathead County, Montana

I. HEADING

Date: 06/30/03
Site Name: Creston Post and Pole RV2
From: Steven Way, On-Scene Coordinator
To: Kevin Mould, EPA Headquarters
POLREP No.: #1

II. BACKGROUND

Site No.: E2
Response Authority: CERCLA
CERCLIS No: MTD83705111
NPL Status: No
Action Memorandum: 05/19/03
Start Date : 05/29/03
Demobilization Date: TBD
Completion Date: TBD

III. SITE INFORMATION

A. Incident Category

Time Critical, Fund-Lead

B. Site Description

1. Site Location

Creston Post and Pole RV2 (CP&P) is located approximately one-half mile east of Creston, in Flathead County, Montana (SW 1/4, Sec. 15, T28N, R20W). The Site is near the intersection of Highway 35 and Creston Hatchery Road. Ranch buildings and a house are on-site; and farm acreages, pastures, and residences are directly across Highway 35 or adjacent to the Site.



2. Description of Threat

The CP&P Site continues to pose a threat to public health and the environment with the presence on-site of highly contaminated soils/sludge. Although groundwater is contaminated and seeps near Mill creek showed detections of PCP, the drinking water wells for the residence are not contaminated. Surface and near surface soils contain PCP, and run-off water has the potential to carry PCP containing soil off-site to drainage channels and Mill Creek.

C. Removal Site Evaluation

CP&P began wood treatment operations on the Site in 1957 using a solution of approximately 5% pentachlorophenol (PCP) and 95% penetrating oil (P9) which were used to preserve the wood products. According to the Montana Department Environmental Quality (MDEQ), waste sludge which contains PCPs has been containerized and shipped to a regulated facility since 1987.

EPA and CP&P entered into an Administrative Order on Consent (AOC) on March 31, 1992, pursuant to which the first Removal Action was conducted and included the construction of a fence around the entire site, construction of a berm around the post yard, and placement of a gravel cap around the treatment building and on a pile of contaminated soil at the north end of the building.

Soil Samples

PCP was detected in soil samples throughout the treatment area ranging from 10 parts per million (ppm) to 1,030 ppm in near surface soils and at depth. TEPH (diesel range petroleum) were ranging in concentration from 38 ppm to 22,000 ppm. Dioxin compounds were detected at levels above 1 ppb in one sample, and other samples were below this level. The subsurface samples show that PCP and TEPH contamination is predominantly in the upper two feet outside of the concrete vault area (START, February 2000 Sampling Activities Report).

Groundwater Samples

PCP was detected in five of the 17 groundwater samples ranging in concentration from 1.3 J parts per billion (ppb) to 880 ppb within the former pole treatment area. Although ground water wells samples showed non-detection of PCP outside the wood treating area, shallow seeps near Mill Creek showed detectable PCP levels. The maximum contaminant level (MCL) for PCP is 1.0 ppb. Ground water is used for drinking water at the residence onsite and at the adjacent properties. The drinking-well water on site did not show measurable PCP concentrations.

The dip tank (vault) located inside the building contained approximately 10,000 gallons of PCP contaminated water. PCP was detected at 1,700 ppb in this sample. This is likely ground water infiltrating into the sub-grade open concrete tank and it may be a source of PCP detected in nearby monitor wells. TEPH was detected in this sample at a concentration of 4,200 ppb, which also is a likely source of the TEPH concentrations observed in groundwater in adjacently located wells and the samples collected in Mill Creek. Analytical results from the sampling activities are detailed in a summary report by EPA's Superfund Technical Assessment and Response Team (START) - Sampling Activities Report, Contract#

IV. RESPONSE INFORMATION

An EPA Presumptive Remedy for PCP contaminated soil is biological treatment. Bench scale treatability tests performed by the Environmental Response Team (ERT)-REAC contractor have shown an active bacteria community in several samples of Creston site soil. Levels of PCP were reduced to non-detectable levels (less than 1 mg/Kg) in several cultures within 7 days. The bacteria from soil samples with the most rapid PCP reduction were cultured and added back to the site soils as a bio-augmentation process for treatment.

A. Situation

1. Removal actions to date

On May 29, 2003, EPA's removal contractor mobilized to the Site. Specific actions to date include the following:

- ◆ Building metal siding was removed on the east and north ends to allow access to the vault area.
- ◆ Approximately 10,000 gallons of water was pumped to a frac tank from the concrete lined vault, which was cracked through on both east and west walls.
- ◆ Debris (wood and plastic) was removed and wrapped for disposal and staged on-site pending disposal.
- ◆ Concrete was power washed and removed, and sediments in the vault were placed with contaminated soil.
- ◆ Vault excavation revealed oil under the vault bottom.
- ◆ The entire vault was removed and concrete was power-washed again as pieces were removed.
- ◆ Temporary support posts were set on each steel building frame as excavation took place.
- ◆ Soil was removed from all sides and bottom of the vault; samples were collected and analyzed on-site prior to backfilling.
- ◆ Backfill operations were necessary to maintain building stability as the excavation continued around each support structure.
- ◆ The cell area was prepared by grading the wood shavings/chips in the pole storage area.
- ◆ Grade was set to allow drainage from the treatment cell to the southwest end of the pole storage area.
- ◆ PVC Liner (30 mil) was received on June 6 and one panel was placed that afternoon; each panel is 37.5 feet wide by 150 long, and panels were overlapped 4 to 5 feet.
- ◆ Washed round rock (6 inch lift) was placed on the liner and spread with tracked skid loader with low ground pressure.
- ◆ Wood chips/shavings (4 inches) from the pole storage area were placed over the rock, and soil was placed over the wood shavings.
- ◆ PCP contaminated soil was blended with sawdust and calcium carbonate. A small volume (100 cyd) of contaminated wood chips/shavings was added to the mix. The soil, sawdust, calcium carbonate blend ratio is 10:1:0.1 by volume, lower concentration soil is mixed with higher concentrations to achieve PCP level below 500 ppm to prevent microbe toxicity associated with higher concentrations.
- ◆ Approximately one half (80 feet x 150 feet) of the cell was lined and loaded

with soil by June 8, the remaining area was lined and loaded by June 11, 2003 creating a total of 148 feet x 156 feet with approximately 14 inches of soil mix.

- ◆ Soil moisture was checked on initial soil batches and was found to be at 16 percent (which is less than optimum based on ERT bench scale work). Water was added from the frac tank storing water pumped from the vault.
- ◆ Plowing and bio-augmentation were completed on June 12. The bio-augmentation culture was applied using a 60 gallon poly-tank and 15 feet of garden hose with a sprinkler head. Three volumes (180 gallons) of the tank with equal portions of the bio-augmentation solution in each was applied over the cell.
- ◆ Plowing was performed using a three bottom, roll-over plow before and after bio-augmentation.
- ◆ A fence was constructed around the treatment cell.
- ◆ Plowing on a weekly basis was started on June 19.

2. Enforcement

TBD

B. Planned Removal Actions

1. Contaminated debris from the building and concrete/tank material will also be removed and disposed of off-site following on site decontamination. This will be performed during re-mobilization after treatment is completed.

2. Bio Treatment Cell O&M - The treatment cell is approximately 150 by 160 feet with a 30 Mil PVC liner, and it is graded to allow the installation of a sump for collection and circulation of water, if any. It is more likely that water addition will be required to maintain the moisture content in the soil.

Monitoring of soil pH & other parameters will be done as needed; sample collection and pile dampness will be done weekly. Treatment will continue an estimated minimum of 14 to 16 weeks or until the target remediation goals are achieved.

D. Key Issues

_____ No key issues at this time. The Removal Actions are consistent with the National Contingency Plan.

V. COST INFORMATION

The budget which has been established in the approved Action Memorandum for this Site is \$367,030. ERRS costs to date are approximately \$140,000, and START costs are approximately \$22,000.

VI. DISPOSITION OF WASTES

Soil will remain on site following biological treatment; contaminated water will be added to the soil; and debris is scheduled for off-site disposal following decontamination.